

Edison Electric Institute (Email)

Greetings!

There are significant discrepancies in the “source energy” values provided by different entities. If you get a chance, please review the attached files. Here are some highlights:

Electricity – “national” values

AGA:	3.1348
EPA:	3.34
NPGA:	3.16
GTI:	1.84 to 3.69 (use e-grid regional values)
NREL:	3.365

It should be noted that AGA also breaks out their values by fuel type (coal, oil, natural gas, nuclear, and “other”, with “national” values ranging from 2.01 for “other” [renewables] to 3.77 for oil-based) but does not show regional values in their analysis.

Natural Gas – “national” values (do not account for LNG imports)

AGA:	1.088
EPA:	1.047
NPGA:	1.1
GTI:	1.09
NREL:	1.092

Fuel Oil – “national” values (do not account for imports, natural gas flaring, or oil sands)

AGA:	1.129
EPA:	1.01
NPGA:	1.1
GTI:	1.13
NREL:	1.158

Propane – “national” values (do not account for oil imports, natural gas flaring, etc)

AGA:	1.1198
EPA:	1.01
NPGA:	1.1
GTI:	1.12
NREL:	1.151

So in all of these cases, there are 5 entities with five different values for the same energy type. It should be noted that the EPA values are used in their Portfolio Manager program, used by existing buildings.

Obviously, if they used the AGA or NPGA or GTI or NREL numbers for fossil fuels, their “results” could be significantly higher and they might not receive the Energy Star labels for their buildings.

Until these entities can agree on and provide technical evidence on the correct values, the IGCC should accept the edits that I submitted on December 31, 2009 as consistent with the votes of the SBTC in August and the EWG in December conference calls.

Thank you for reviewing this long e-mail.

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EEl supports the decision of the DOER to use site energy as the most logical, technical feasible, and justified for this program. It is consistent with the following building energy efficiency codes:

ASHRAE 90.1

ASHRAE 189.1

ASHRAE 90.2

ASHRAE 100

IECC Chapter 5

In addition, the use of site energy was supported in the June, 2010 ASHRAE *Report of the Technology Council Ad Hoc Committee on Energy Targets*, page 4:

‘Ultimately, the only way to measure if a building is a NZEB is to look at the energy crossing the boundary. Other definitions, including source, emissions, and cost, are based on the measured information and include weighting factors and algorithms to get to the metric of interest. Because of the complications involved in making these computations, **site energy measurements** have been chosen through an agreement of understanding between ASHRAE, the American Institute of Architects (AIA), the U.S. Green Building Council (USGBC), and the Illuminating Engineering Society of North America (IESNA).’

Thank you for your consideration of our comments.

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